than an axial length of said through hole and a second portion that is not in engagement with an inside surface of said through hole; and

reinforcing means provided at least inside said through hole for securely fixing said shaft in a predetermined position in said magnet.

2. (Amended) A rotor as set forth in claim 1, wherein said magnet comprises an annular magnet material and said reinforcing means comprises a coating formed at least on an inside surface of the through hole of said magnet material, said axial interengagement length of said first portion of said shaft being engaged with said coating in a face-to-face manner.

6. (Amended) A rotor as set forth in claim 3, wherein said metal plating is a single layer coating having a thickness of at least 10 μm.

12. (Amended) A rotor as set forth in claim 11, wherein a dimensional relationship between said axial interengagement length of said first portion of said shaft and said axial length of said through hole is defined as $T/5 \leq t \leq T/2$, in which "T" is said through hole axial length and "t" is said axial interengagement length.

13. (Amended) A rotor as set forth in claim 11, wherein said first portion of said shaft is tightly press-fitted in said through hole of said magnet, and wherein an interference of said first portion in said through hole is in a range of 5 μm to 30 μm.

15. (Amended) A rotor as set forth in claim 1, wherein said reinforcing means comprises an adhesive filled in a clearance defined between said second portion of said shaft and an inside surface of said through hole of said magnet.

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16. (Amended) A rotor as set forth in claim 15, wherein a dimensional relationship between said axial interengagement length of said first portion of said shaft and said axial length of said through hole is defined as $T/5 \leq t \leq 4T/5$, in which "T" is said through hole axial length and "t" is said axial interengagement length.

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18. (Amended) A rotor as set forth in claim 15, wherein said magnet comprises an annular magnet material and said reinforcing means further comprises a coating formed at least on an inside surface of the through hole of said magnet material, said axial interengagement length of said first portion of said shaft being engaged with said coating in a face-to-face manner.

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23. (Amended) A method of producing a rotor for an electric motor, comprising the steps of:

forming a coating on at least an inside surface of a through hole of an annular magnet material having a rotation axis, said through hole extending coaxially with said rotation axis;

providing a shaft including a first portion capable of being fitted in said through hole; and

inserting said first portion of said shaft into said through hole of said magnet until an axial interengagement length of said first portion, shorter than an axial length of said through hole, is engaged in a tightly press-fit manner with said coating while a second portion of said shaft is not in engagement with said coating.

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25. (Amended) A method as set forth in claim 23, wherein an interference of said first portion in said through hole is adjusted by changing a thickness of said coating.

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